

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

5

1 1. (previously presented) A method for synchronizing operations in a computer
2 environment with accompanying audio, said method comprising:

3 replaying said operations and said accompanying audio in said
4 computer environment using an event recording, said operations resulting from
5 processing of recorded user inputs of said event recording, said event recording
6 including all user inputs to an original computer environment during said event
7 recording and initial conditions of said original computer environment when said
8 event recording was initiated;

9 creating a synchronization point at a common point in said replaying
10 of said operations and said accompanying audio;

11 associating said synchronization point with said accompanying audio,
12 said synchronization point providing a reference point to substantially synchronize
13 said accompanying audio when said operations are replayed in a replay computer
14 environment using said recorded user inputs;

15 detecting said synchronization point during a subsequent replay of said
16 operations and said accompanying audio in said replay computer environment, said
17 subsequent replay involving another processing of said recorded user inputs;

18 comparing said synchronization point with a time value associated
19 with said another processing of said recorded user inputs;

20 selectively pausing said subsequent replay of said accompanying audio
21 if a difference between said synchronization point and said time value exceeds a
22 predefined amount so that said subsequent replay of said operations can catch up to
23 said accompanying audio; and

24 resuming said subsequent replay of said accompanying audio if a
25 difference between said synchronization point and a current time value does not
26 exceed a second predefined amount, said current time value being associated with
27 said another processing of said recorded user inputs.

1 2. (original) The method of claim 1 wherein said creating of said
2 synchronization point includes creating said synchronization point in response to a
3 user command.

1 3. (original) The method of claim 1 wherein said common point is at a point in
2 time where there is no audio output during said replaying of said accompanying
3 audio.

1 4. (original) The method of claim 1 further comprising obtaining a current time
2 value associated with said processing of said recorded user inputs, said current time
3 value corresponding to said synchronization point.

1 5. (original) The method of claim 1 further comprising saving said
2 synchronization point in a first file containing said accompanying audio, said first file
3 being different than a second file containing said recorded user inputs.

1 6. (original) The method of claim 1 further comprising changing a time value of
2 said synchronization point in response to a positional change of a marker of said
3 synchronization point in a timeline.

1 7. (canceled).

1 8. (canceled).

1 9. (previously presented) The method of claim 1 wherein said second predefined
2 amount equals said predefined amount.

1 10. (previously presented) A method for synchronizing operations in a computer
2 environment with accompanying audio, said method comprising:

3 replaying said operations in said computer environment, including
4 replaying said accompanying audio, using an event recording, said operations
5 resulting from processing of recorded user inputs of said event recording, said event
6 recording including all user inputs to an original computer environment during said
7 event recording and initial conditions of said original computer environment when
8 said event recording was initiated;

9 detecting a synchronization point during said replaying of said
10 accompanying audio;

11 comparing said synchronization point with a time value associated
12 with said processing of said recorded user inputs;

13 selectively pausing said replaying of said accompanying audio if a
14 difference between said synchronization point and said time value exceeds a
15 predefined amount so that said replaying of said operations can catch up to said
16 accompanying audio; and

17 resuming said replaying of said accompanying audio if a difference
18 between said synchronization point and a current time value does not exceed a second
19 predefined amount, said current time value being associated with said processing of
20 said recorded user inputs.

1 11. (canceled).

1 12. (previously presented) The method of claim 10 wherein said second
2 predefined amount equals said predefined amount.

1 13. (original) The method of claim 10 further comprising displaying said
2 synchronization point as a marker on a timeline, said timeline including time values
3 extracted from said recorded user inputs.

1 14. (original) The method of claim 10 further comprising:
2 creating said synchronization point at a common point in a replay of
3 said operations and said accompanying audio; and
4 associating said synchronization point with said accompanying audio.

1 15. (original) The method of claim 14 wherein said creating of said
2 synchronization point includes creating said synchronization point in response to a
3 user command.

1 16. (original) The method of claim 14 wherein said common point is at a point in
2 time where there is no audio output of said accompanying audio.

1 17. (original) The method of claim 14 further comprising saving said
2 synchronization point in a first file containing said accompanying audio, said first file
3 being different than a second file containing said recorded user inputs.

1 18. (original) The method of claim 14 further comprising changing a time value of
2 said synchronization point in response to a positional change of a marker of said
3 synchronization point in a timeline.

1 19. (previously presented) A storage medium readable by a computer, tangibly
2 embodying a program of instructions executable by said computer to perform method
3 steps for synchronizing operations in a computer environment with accompanying
4 audio, said method comprising:
5 replaying said operations and said accompanying audio in said
6 computer environment using an event recording, said operations resulting from

7 processing of recorded user inputs of said event recording, said event recording
8 including all user inputs to an original computer environment during said event
9 recording and initial conditions of said original computer environment when said
10 event recording was initiated;
11 creating a synchronization point at a common point in said replaying
12 of said operations and said accompanying audio; and
13 associating said synchronization point with said accompanying audio,
14 said synchronization point providing a reference point to substantially synchronize
15 said accompanying audio when said operations are replayed in a replay computer
16 environment using said recorded user inputs;
17 detecting said synchronization point during a subsequent replay of said
18 operations and said accompanying audio in said replay computer environment, said
19 subsequent replay involving another processing of said recorded user inputs;
20 comparing said synchronization point with a time value associated
21 with said another processing of said recorded user inputs;
22 selectively pausing said subsequent replay of said accompanying audio
23 if a difference between said synchronization point and said time value exceeds a
24 predefined amount so that said subsequent replay of said operations can catch up to
25 said accompanying audio; and
26 resuming said subsequent replay of said accompanying audio if a
27 difference between said synchronization point and a current time value does not
28 exceed a second predefined amount, said current time value being associated with
29 said another processing of said recorded user inputs.

- 1 20. (original) The storage medium of claim 19 wherein said creating of said
2 synchronization point includes creating said synchronization point in response to a
3 user command.

1 21. (original) The storage medium of claim 19 wherein said common point is at a
2 point in time where there is no audio output during said replaying of said
3 accompanying audio.

1 22. (original) The storage medium of claim 19, wherein said method further
2 comprises obtaining a current time value associated with said processing of said
3 recorded user inputs, said current time value corresponding to said synchronization
4 point.

1 23. (original) The storage medium of claim 19, wherein said method further
2 comprises saving said synchronization point in a first file containing said
3 accompanying audio, said first file being different than a second file containing said
4 recorded user inputs.

1 24. (original) The storage medium of claim 19, wherein said method further
2 comprises changing a time value of said synchronization point in response to a
3 positional change of a marker of said synchronization point in a timeline.

1 25. (canceled).

1 26. (canceled).

1 27. (previously presented) The storage medium of claim 19 wherein said second
2 predefined amount equals said predefined amount.

1 28. (previously presented) A storage medium readable by a computer, tangibly
2 embodying a program of instructions executable by said computer to perform method
3 steps for synchronizing operations in a computer environment with accompanying
4 audio, said method comprising:

5 replaying said operations in said computer environment, including
6 replaying said accompanying audio, using an event recording, said operations
7 resulting from processing of recorded user inputs of said event recording, said event
8 recording including all user inputs to an original computer environment during said
9 event recording and initial conditions of said original computer environment when
10 said event recording was initiated;

11 detecting a synchronization point during said replaying of said
12 accompanying audio;

13 comparing said synchronization point with a time value associated
14 with said processing of said recorded user inputs;

15 selectively pausing said replaying of said accompanying audio if a
16 difference between said synchronization point and said time value exceeds a
17 predefined amount so that said replaying of said operations can catch up to said
18 accompanying audio; and

19 resuming said replaying of said accompanying audio if a difference
20 between said synchronization point and a current time value does not exceed a second
21 predefined amount, said current time value being associated with said processing of
22 said recorded user inputs.

1 29. (canceled).

1 30. (previously presented) The storage medium of claim 28 wherein said second
2 predefined amount equals said predefined amount.

1 31. (original) The storage medium of claim 28 further comprising displaying said
2 synchronization point as a marker on a timeline, said timeline including time values
3 extracted from said recorded user inputs.

1 32. (original) The storage medium of claim 28 wherein said method further
2 comprises:

3 creating said synchronization point at a common point in a replay of
4 said operations and said accompanying audio; and
5 associating said synchronization point with said accompanying audio.

1 33. (original) The storage medium of claim 32 wherein said method further
2 comprises wherein said creating of said synchronization point includes creating said
3 synchronization point in response to a user command.

1 34. (original) The storage medium of claim 32 wherein said common point is at a
2 point in time where there is no audio output of said accompanying audio.

1 35. (original) The storage medium of claim 32 further comprising saving said
2 synchronization point in a first file containing said accompanying audio, said first file
3 being different than a second file containing said recorded user inputs.

1 36. (original) The storage medium of claim 32 further comprising changing a time
2 value of said synchronization point in response to a positional change of a marker of
3 said synchronization point in a timeline.

1 37. (previously presented) A method for synchronizing operations in a computer
2 environment with accompanying audio, said method comprising:

3 replaying said operations in said computer environment, including
4 replaying said accompanying audio, using an event recording, said operations
5 resulting from processing of recorded user inputs of said event recording, said event
6 recording including all user inputs to an original computer environment during said
7 event recording and initial conditions of said original computer environment when
8 said event recording was initiated;

9 detecting a synchronization point during said replaying of said
10 accompanying audio;

11 comparing said synchronization point with a time value associated
12 with said processing of said recorded user inputs;
13 selectively pausing said replaying of said accompanying audio if a
14 difference between said synchronization point and said time value exceeds a
15 predefined amount so that said replaying of said operations can catch up to said
16 accompanying audio;
17 creating said synchronization point at a common point in a replay of
18 said operations and said accompanying audio, wherein said common point is at a
19 point in time where there is no audio output of said accompanying audio; and
20 associating said synchronization point with said accompanying audio.

1 38. (previously presented) A storage medium readable by a computer, tangibly
2 embodying a program of instructions executable by said computer to perform said
3 method of claim 37.

1 39. (previously presented) A method for synchronizing operations in a computer
2 environment with accompanying audio, said method comprising:
3 replaying said operations in said computer environment, including
4 replaying said accompanying audio, using an event recording, said operations
5 resulting from processing of recorded user inputs of said event recording, said event
6 recording including all user inputs to an original computer environment during said
7 event recording and initial conditions of said original computer environment when
8 said event recording was initiated;
9 detecting a synchronization point during said replaying of said
10 accompanying audio;
11 comparing said synchronization point with a time value associated
12 with said processing of said recorded user inputs;
13 selectively pausing said replaying of said accompanying audio if a
14 difference between said synchronization point and said time value exceeds a

15 predefined amount so that said replaying of said operations can catch up to said
16 accompanying audio;
17 creating said synchronization point at a common point in a replay of
18 said operations and said accompanying audio;
19 associating said synchronization point with said accompanying audio;
20 and
21 saving said synchronization point in a first file containing said
22 accompanying audio, said first file being different than a second file containing said
23 recorded user inputs.

1 40. (previously presented) A storage medium readable by a computer, tangibly
2 embodying a program of instructions executable by said computer to perform said
3 method of claim 39.

1 41. (previously presented) The method of claim 1, further comprising:
2 saving said initial conditions of said original computer environment in a log
3 file when a recording is initiated, said initial conditions corresponding to an initial
4 state of said original computer environment such that said initial state of said original
5 computer environment can be automatically recreated on replay using said initial
6 conditions, said initial state being a particular state from a plurality of possible states
7 for said original computer environment, said log file including complete definitions of
8 every control in said original computer environment with respect to said initial state
9 so that said initial state can be subsequently recreated using said log file;
10 modifying said initial conditions in said log file in response to user
11 editing of said log file so that a modified initial state of said original computer
12 environment is automatically created on replay using modified initial conditions in
13 said log file when said log file is loaded; and
14 automatically loading said log file in said computer environment when
15 a replay is initiated to create said modified initial state in said computer environment
16 as a starting state for said replay.

1 42. (previously presented) The method of claim 10, further comprising:
2 saving said initial conditions of said original computer environment in a log
3 file when a recording is initiated, said initial conditions corresponding to an initial
4 state of said original computer environment such that said initial state of said original
5 computer environment can be automatically recreated on replay using said initial
6 conditions, said initial state being a particular state from a plurality of possible states
7 for said original computer environment, said log file including complete definitions of
8 every control in said original computer environment with respect to said initial state
9 so that said initial state can be subsequently recreated using said log file;
10 modifying said initial conditions in said log file in response to user
11 editing of said log file so that a modified initial state of said original computer
12 environment is automatically created on replay using modified initial conditions in
13 said log file when said log file is loaded; and
14 automatically loading said log file in said computer environment when
15 a replay is initiated to create said modified initial state in said computer environment
16 as a starting state for said replay.

1 43. (previously presented) The storage medium of claim 19, wherein said method
2 steps further comprises:
3 saving said initial conditions of said original computer environment in a log
4 file when a recording is initiated, said initial conditions corresponding to an initial
5 state of said original computer environment such that said initial state of said original
6 computer environment can be automatically recreated on replay using said initial
7 conditions, said initial state being a particular state from a plurality of possible states
8 for said original computer environment, said log file including complete definitions of
9 every control in said original computer environment with respect to said initial state
10 so that said initial state can be subsequently recreated using said log file;
11 modifying said initial conditions in said log file in response to user
12 editing of said log file so that a modified initial state of said original computer

13 environment is automatically created on replay using modified initial conditions in
14 said log file when said log file is loaded; and
15 automatically loading said log file in said computer environment when
16 a replay is initiated to create said modified initial state in said computer environment
17 as a starting state for said replay.